

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

REPORT

CD NO.

COUNTRY East Germany

DATE DISTR. 16 November 1954

SUBJECT 1955 Research Projects of the Crystal
Structure Analysis Department of the
Academy Institute for Medicine and Biology

NO. OF PAGES 3 25X1

PLACE
ACQUIREDNO. OF ENCLS.
(LISTED BELOW)

25X1

DATE OF
INFO.SUPPLEMENT TO
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE
OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793
AND 794, OF THE U. S. CODE, AS AMENDED. ITS TRANSMISSION OR REVEL-
ATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON
IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

25X1

1. The following table lists the research and development projects to be carried out in 1955 by the Work Group (Arbeitsgruppe) for Crystal Structure Analysis in the East German Academy Institute for Medicine and Biology in Berlin-Buch. These projects have received preliminary approval by the State Planning Commission and the Central Office for Research and Technology (ZAFI). 25X1

2. The projects are listed in the form in which approval was applied for. Each project is designated by plan number, which in all the cases listed below is 400 309/h, and by a research project number. Furthermore, the application is drafted according to the following key:

- 1,1: Subject of project
- 1,2: Short designation of the project
- 1,3: Scientific-technical aim of the project, and/or its technical data
- 1,4: Size of the project and methods of carrying it out
- 1,5: Economic aim of the project
- 1,7: Result of coordination with the Working Circles (Arbeitskreise)
- 1,8: Suborders for the completion of the project placed elsewhere.

3. The 1955 Research and Development Projects:

a. Research Project Number F 4-7, carried out under the supervision of Eng. Walter Troisch.

- 1,1: Development of an electronic analog computer for the direct measuring out of Fourier syntheses.¹
- 1,2: Fourier device.
- 1,3: Two-dimensional Fourier synthesis device, the result of which can be made visible within a few minutes on the luminescent screen of a Braun (this device the numerical evaluation will be made).
- 1,4: Experimental testing of a one-dimensional and a two-dimensional test machine. Construction experiments.
- 1,5: Increase of the productivity of scientific work. 25X1

STATE	NAVY	NSRB	DISTRIBUTION	OSI Ev
ARMY	AIR	FBI		

25X1

SECRET CONTROL
U.S. OFFICIALS ONLY

- 2 -

b. Research Project Number F 5-1, carried out by Dipl. Phys. Karl-Heinz Jost.

- 1,1: X-ray structural study of chamazulene.
- 1,2: Azulene analysis.
- 1,3: Determining the structure of chamazulene.
- 1,4: X-ray structure analysis of monocrystals of chamazulene compounds.
- 1,5: Increase of scientific knowledge.
- 1,7: The project will be carried out after coordination with Prof. Jung (fnu), in the Pharmacological Department, with camomile oil made available by him.

c. Research Project Number F 5-2, carried out under the supervision of Dr. Kaete Dornberger.

- 1,1: Determination of the electron distribution in cadmium sulfide and other semiconductors.
- 1,2: Electron density distribution.
- 1,3: The qualities of the electron density distribution through determination of the electron density distribution.
- 1,4: Most exact determination possible of the intensities of powder and monocrystal diagrams.
- 1,5: Increase of scientific knowledge.

d. Research Project Number F 5-3, carried out under the supervision of Dr. Kaete Dornberger.

- 1,1: Study of a number of triphenyl-pyrazolines for the purpose of determining the influence of various substitutions on the structural frame and the electron density distribution in the structural frame.
- 1,2: Structural study of triphenyl-pyrazolines.
- 1,3: A contribution to the clarification of the character of conjugated double compounds.
- 1,4: X-ray monocrystal diagrams and their evaluation.
- 1,5: An increase of scientific knowledge.

e. Research Project Number F 5-4, carried out under the supervision of Dr. Kaete Dornberger.

- 1,1: Structural study with X-rays of various organic substances.
- 1,2: Structural study of organic substances.
- 1,3: Determination of the chemical structure.
- 1,4: X-ray monocrystal diagrams and their evaluation.
- 1,5: Increase of scientific knowledge.

f. Research Project Number F 5-5, carried out under the supervision of Dr. Kaete Dornberger.

- 1,1: Structural study with X-rays of various inorganic substances.
- 1,2: Structural study of inorganic substances.
- 1,3: Determination of the structure.
- 1,4: X-ray monocrystal diagrams and their evaluation.
- 1,5: Increase of scientific knowledge.

g. Research Project Number F 5-6, carried out under the supervision of Dipl. Phys. Guenter Heide.

- 1,1: Structural study of xanthocillin and xanthocillin derivatives.
- 1,2: Xanthocillin study.

SECRET CONTROL
U.S. OFFICIALS ONLY

25X1


SECRET CONTROL
U.S. OFFICIALS ONLY

- 3 -


- 1,3: Clarification of the chemical structure of xanthocillin.
- 1,4: X-ray monocrystal diagrams and their evaluation.
- 1,5: Increase of scientific knowledge and basic work for the development of other antibiotics by VEB Arzneimittelwerk Dresden.

(H. Research Project Number F 5-7, carried out under the supervision of Ernst Hoehne.


- 1,1: Structural study of betechten.²
- 1,2: Betechten analysis.
- 1,3: Determination of the grid constant and spatial groups for the chemical and mineralogical characterization of betechten. Possible determination of the location of its atoms.
- 1,5: Increase of scientific knowledge.

1/  Comment. This development will be carried over from 1953 and 1954.

25X1

2/  Comment. Betechten is

25X1

2/  Comment. Betechten is a new mineral substance alleged to be discovered by a Russian named Betehtin. This project was taken up after Prof. Schueller (fnu), of the Mineralogical Institute of Berlin Humboldt University convinced the personnel of the Institute for Medicine and Biology of the scientific importance of the Russian's discovery.

25X1

SECRET CONTROL
U.S. OFFICIALS ONLY

SECRET CONTROL
U.S. OFFICIALS ONLY